No. 9600184

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

## South Dakota Agricultural Experiment Station

Whereas, THERE HAS BEEN PRESENTED TO THE

**Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

*WHEAT*

*'Russ'*

*In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twenty-eighth day of June in the year of our Lord one thousand nine hundred and ninety-six.*

*Attest:*

*Marsha A. Stanton*
*Commissioner*
*Plant Variety Protection Office*
*Agricultural Marketing Service*

*Dan Glickman*
*Secretary of Agriculture*

REPRODUCE LOCALLY. *Include form number and date on all reproductions.*

FORM APPROVED - OMB NO. 0581-005

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION - PLANT VARIETY PROTECTION OFFICE

# APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

*(Instructions and information collection burden statement on reverse)*

*The following statements are made in accordance with the Privacy Act o 1974 (5 U.S.C. 552a).*

*Application is required in order to determine if a plant variety protectio certificate is to be issued (7 U.S.C. 2421). Information is held confidentia until certificate is issued (7 U.S.C. 2426).*

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*

SOUTH DAKOTA AGRICULTURAL EXPERIMENT STATION

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER

SD8073

3. VARIETY NAME

Russ

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*

SOUTH DAKOTA STATE UNIVERSITY
AG HALL 129
BROOKINGS SD 57007

5. TELEPHONE *(include area code)*

605-688-4149

6. FAX *(include area code)*

605-688-6065

**FOR OFFICIAL USE ONLY**

PVPO NUMBER: 9600184

FILING DATE: MAR 15 1996

FEES RECEIVED — FILING AND EXAMINATION FEE: $ 2450.00

DATE: MAR 15, 1996

CERTIFICATION FEE: $ 300.00

DATE: 6-11-96

7. GENUS AND SPECIES NAME

Triticum aestivum L.

8. FAMILY NAME *(Botanical)*

Graminea

9. CROP KIND NAME *(Common name)*

Hard Red Spring Wheat

10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)* *(Common name)*

Agricultural Experiment Station

11. IF INCORPORATED, GIVE STATE OF INCORPORATION

N/A

12. DATE OF INCORPORATION

N/A

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

DR FRED A CHOLICK, DIRECTOR
SOUTH DAKOTA AGRIC. EXP. STA.
AG HALL 129 BOX 2207
SDSU BROOKINGS SD 57007-2141

DR JACKIE RUDD, SPRING WHEAT BREEDER
PLANT SCIENCE DEPARTMENT
NPB 224D BOX 2140-C
SDSU BROOKINGS, SD 57006-2141

14. TELEPHONE *(include area code)*

605-688-4769

15. FAX *(include area code)*

605-688-4452

16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow instructions on reverse)*

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of the Variety
d. ☒ Exhibit D. Additional Description of the Variety
e. ☒ Exhibit E. Statement of the Basis of the Applicant's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in a public repository)*
g. ☒ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to PVPO)*

17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)?*

☒ YES *(If "yes," answer items 18 and 19 below)* ☐ NO *(If "no," go to item 20)*

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☒ YES ☐ NO

19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☒ FOUNDATION ☒ REGISTERED ☒ CERTIFIED

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?

☒ YES *(If "yes," give names of countries and dates)* ☐ NO

U.S. A., MARCH 15, 1995 (Release notice mailed)

21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT *(Owner(s))*

Fred A. Cholick

NAME *(Please print or type)*

DR. FRED A. CHOLICK

CAPACITY OR TITLE

DIRECTOR, SDAES

DATE

3.14.96

SIGNATURE OF APPLICANT *(Owner(s))*

NAME *(Please print or type)*

CAPACITY OR TITLE

DATE

SD-470 (04-86) *(Previous editions are to be destroyed)*

EXHIBIT A.
Russ (SD8073)
Origin and Breeding History of the Variety

Russ is an $F_6$ derived line from the cross 'SD8052/SD2971' made at Brookings, South Dakota in 1984. The pedigree of SD8052 is (ND585, Butte*3/ (ND507, Waldron/5/ (RL4205, Pembina*6 /2/ Thatcher*3/ Transfer/4/ Pembina*6/3/ Thatcher*2/2/ Marquis*6/ Red Egyptian)))/ Shield and the pedigree of SD2971 is Agent/3/ND441//Waldron/Bluebird/4/Butte/5/Len. The $F_1$ plants were grown at Weslaco, Texas during the winter of 1984-1985. Individual $F_2$ plant selections were made at Brookings, South Dakota in 1986 and were grown at Weslaco the following winter as plant rows. The plant rows at Weslaco were harvested as rows and used to plant $F_{2:4}$ yield trials and a space planted nursery at Brookings in 1987. Based on data collected from the yield trials, individual plants were selected within the selected populations. Populations were selected based on grain yield, grain volume weight, and bread-making characteristics and individual plants were visually selected for resistance to prevalent foliar pathogens (viz. leaf rust and stem rust). Plant rows were grown in Weslaco during the winter and $F_{4:6}$ yield trials and space planted nursery were conducted at Brookings in 1988. As in 1987, the yield trial data was used to identify high yielding populations and individual plants were selected within the selected populations in the space planted nursery. The $F_6$ plant rows were grown in Weslaco and a single row was harvested and given the designation SD8073. Seed increase was conducted by the South Dakota Spring Wheat Breeding Program from 1989 through 1992. Breeders' seed was produced in 1993 and Foundation seed was produced in 1994.

Russ was tested by the South Dakota Spring Wheat Breeding Program from 1989 through 1994 and in the Uniform Regional Spring Wheat Nursery from 1991 through 1993. SD8073 was in the Spring Wheat Crop Quality Test in 1993 and 1994.

Russ has been uniform and stable for all morphological characters during the past four generations of selfing and increase. A tall variant (10 cm taller) was identified in the breeders seed at a frequency of approximately 0.2%. Up to 0.5% variant plants may be encountered in subsequent generations.

EXHIBIT B.
Russ (SD8073)
Statement of Distinctness

Russ is most similar to the hard red spring wheat cultivars 'Butte 86' and 'Sharp', but differs in the following characteristics:

- Russ is two days later to heading than Butte 86 and Sharp (Table 1.)
- Russ has a longer dough mixing time and a stronger mix pattern than Butte 86 and Sharp (Table 2.)
- ~~Russ is heterogeneous for resistance to Hessian Fly, whereas, Butte 86 and Sharp do not have Hessian Fly resistance (see letter from Dr. J.H. Hatchett).~~ deleted per letter of MAY 7, 1996 MAH 5-15-96

Table 1. South Dakota State University, Spring Wheat Breeding Trials Combined Over Locations.

| | 1993 | | | |
|---|---|---|---|---|
| | Yield bushels/acre (8)[1] | Test Weight pounds/bushel (8) | Heading day of year (5) | Height cm (8) |
| Russ | 39.1 | 54.2 | 177.8 | 91.6 |
| Butte 86 | 37.9 | 55.4 | 175.1 | 89.3 |
| Sharp | 36.5 | 57.3 | 175.3 | 91.0 |
| Prospect | 35.0 | 52.6 | 179.3 | 88.3 |
| 2375 | 40.0 | 57.2 | 177.2 | 87.3 |
| LSD (0.05) | 3.81 | 1.27 | 0.96 | 3.69 |
| C.V. % | 10.78 | 2.33 | 0.43 | 4.19 |

| | 1994 | | | |
|---|---|---|---|---|
| | Yield bushels/acre (9)[1] | Test Weight pounds/bushel (9) | Heading day of year (7) | Height cm (6) |
| Russ | 41.7 | 58.9 | 172.7 | 82.0 |
| Butte 86 | 38.3 | 58.6 | 171.4 | 83.3 |
| Sharp | 39.6 | 58.9 | 170.7 | 84.3 |
| Prospect | 36.7 | 57.7 | 174.8 | 79.5 |
| 2375 | 37.3 | 59.2 | 173.2 | 76.3 |
| LSD (0.05) | 2.76 | 1.28 | 1.09 | 3.27 |
| C.V. % | 7.91 | 2.36 | 0.60 | 4.19 |

[1] number of locations that data was collected.

Table 2. Quality characteristics. Samples from the 1992-1994 SDSU Advanced Yield Trial were evaluated by the Spring Wheat Quality Laboratory, Fargo, ND

| | Test Weight ------lb/bu------ | | | Protein ----------%------ | | | Hardness | | | Flour Extraction ---------%--------- | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 92 (6) | 93 (5) | 94 (5) | 92 (6) | 93 (5) | 94 (5) | 92 (6) | 93 (5) | 94 (5) | 92 (6) | 93 (5) | 94 (5) |
| Russ | 59.1 | 56.3 | 61.3 | 13.6 | 14.1 | 14.1 | 73 | 68 | 83 | 64.6 | 65.0 | 69.4 |
| Butte 86 | 59.6 | 57.6 | 61.8 | 13.8 | 14.1 | 14.4 | 81 | 75 | 83 | 66.7 | 66.0 | 69.5 |
| 2375 | 59.8 | 58.6 | 61.4 | 13.6 | 13.7 | 14.1 | 70 | 66 | 71 | 66.6 | 66.0 | 69.3 |
| Prospect | 58.7 | 55.9 | 61.3 | 13.2 | 13.5 | 13.2 | 56 | 49 | 58 | 61.5 | 63.7 | 68.3 |
| Sharp | 60.8 | 59.3 | 63.1 | 13.7 | 13.9 | 14.1 | 62 | 53 | 60 | 64.7 | 63.5 | 69.3 |

| | Mixing Pattern | | | Mix Time (min) | | | Loaf Volume | | |
|---|---|---|---|---|---|---|---|---|---|
| | 92 (6) | 93 (5) | 94 (5) | 92 (6) | 93 (5) | 94 (5) | 92 (6) | 93 (5) | 94 (5) |
| Russ | 4.7 | 3.6 | 4.0 | 5.0 | 5.5 | 4.6 | 183 | 193 | 182 |
| Butte 86 | 3.3 | 2.2 | 2.0 | 3.1 | 3.5 | 3.4 | 183 | 197 | 179 |
| 2375 | 3.3 | 2.4 | 3.0 | 3.5 | 4.0 | 3.9 | 185 | 194 | 182 |
| Prospect | 1.7 | 1.4 | 2.0 | 2.9 | 3.4 | 3.3 | 183 | 190 | 180 |
| Sharp | 3.5 | 2.4 | 2.0 | 3.3 | 3.6 | 3.2 | 184 | 196 | 182 |

Photograph 1. South Dakota Spring Wheat Acid PAGE, Seed Testing Laboratory, South Dakota State University.

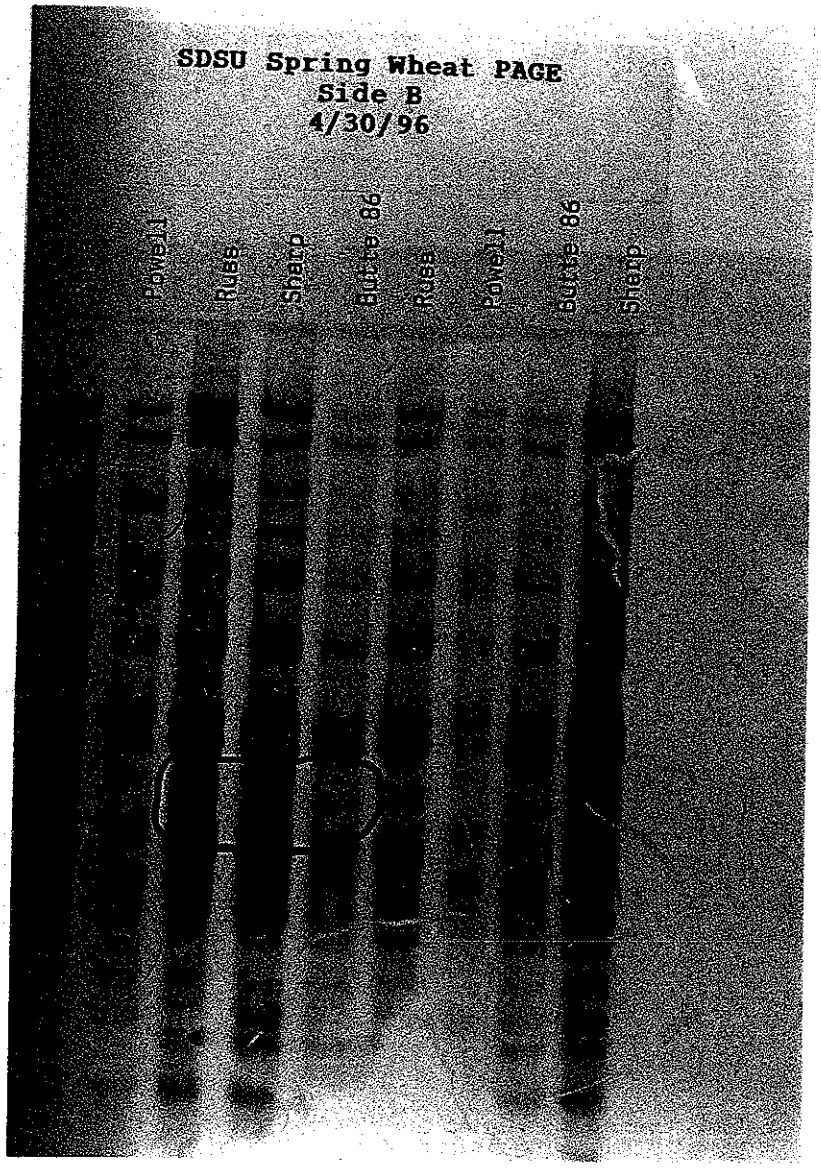

Table 3.

Seedling reaction of entries of the 1993 Uniform Hard Red Spring Wheat Performance Nursery to selected isolates of Puccinia graminis f. sp. tritici. (D.V. McVey, USDA-ARS, Cereal Rust Laboratory, U. of Minnesota, St. Paul, MN. 55108)

| | | Reaction Produced by Isolates | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 74-14-504C | 75-32-1662A | 76-00-118B | 70-21-528A | 71-00-24C | 76-14-396A | 76-21-833B | 76-21-702C |
| No | Cult/Line | RPQQ | RTQS | RTQQ | QFBS | QSHS | TNMH | TNMK | RKQS |
| 1 | MARQUIS | s | 23 | S | 2= | 2 | 2 | S | 23 |
| 2 | CHRIS | 23 | 23 | 22- | 2 | ;1 | 0; | 2 | 2- |
| 3 | Era | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| 4 | STOA | - | 2= | 2= | 0; | 2= | 0 | 0 | 2= |
| 5 | BUTTE 86 | 0 | 2= | 2= | 0; | 2= | 0 | 0 | 2= |
| 6 | SD8072 | 2- | 2 | 2 | 2- | 23 | 2= | 2- | 2 |
| 7 | SD8073 | 2 | 23 | 2- | 2= | 2 | 2= | 2= | 2 |
| 8 | SD8070 | 2= | 2 | 2= | 2= | 2- | 2= | 2= | 2- |
| 9 | SD0005 | 0 | 0; | - | - | - | - | ;1- | 0; |
| 10 | SD0010 | 2- | ;1 | 2- | 0; | 23 | 0; | 2= | 0; |
| 11 | MN89103 | 2= | 2 | 2= | 2= | 2= | ;1 | 2= | 2- |
| 12 | MN90071 | 0 | ;1 | 1 | 0; | 2= | 0; | 0 | ;1 |
| 13 | MN90114 | 0 | 0; | 0 | 0 | 2= | 0 | 0 | 0; |
| 14 | MN90253 | 0 | ;1- | 0 | 0 | 2= | 0 | 0 | 0; |
| 15 | SBE0437 | 0; | 0; | 0; | 0; | 2- | 0 | ;1- | 0; |
| 16 | SBE0444 | 0; | ;1- | 0 | 0; | 1 | 0 | ;1- | ;1- |
| 17 | ND671 | 0 | 2= | 2= | 0 | 2= | 0 | 0; | 2= |
| 18 | ND673 | 2= | 2= | 2= | 2= | 2= | 2= | 2= | 2= |
| 19 | ND674 | 2= | 2= | 2- | 2= | 2= | 2= | 2= | 2= |
| 20 | ND677 | - | 2= | 2= | 0; | 2= | 0 | 0; | 2= |
| 21 | ND678 | - | 2= | 2= | 0 | 2= | - | 0 | 2= |
| 22 | XW398A4 | 2= | 2= | 0 | 0; | 2= | 0 | - | ;1- |
| 23 | N86-0348 | - | 2= | 0 | 0 | 2= | 0 | 0 | 2= |
| 24 | N90-0666 | 0 | 0; | 0 | 0; | 2= | 0 | 0 | 0; |
| 25 | N90-0671 | 0 | ;1- | 0 | 0; | 1 | 0 | 0; | 0; |
| 26 | N90-0700 | 2- | 23 | 2 | 2= | 2= | 2= | 2 | 2 |
| 27 | N88-3140 | - | x | 2= | 0; | ;1 | 0; | 0; | 2= |
| 28 | MT8849 | 0 | 2- | 0 | 2- | 2- | 2= | 2- | 2- |
| 29 | BW152 | ;1 | 2= | 0; | 0; | 0 | 0 | ;1 | 0; |
| 30 | 8601AE3C | 0 | 23 | 2= | 0 | 2= | 0 | 0 | 2- |
| 31 | BZ 988-351 | 2= | 0; | 2= | 0 | - | 0 | 0 | 2= |
| 32 | BZ 984-334 | 0; | 0;,2= | 2= | ;1 | 0,2= | 0 | 0 | 2= |

Sr genes

| | | | | |
|---|---|---|---|---|
| Set I | 5 | 9d | 9e | 7b |
| Set II | 11 | 6 | 8 | 9a |
| Set III | 36 | 9b | 13 | 10 |
| Set IV | 15 | 16 | 17 | Tmp |

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Table 4-1. Seedling reaction of the 1986 Hard Red Spring Wheat Performance Nursery to selected isolates of Puccinia graminis f. sp. tritici. (by D.V. McVey, USDA, ARS, U. of MN., St. Paul, MN).

| | | Reaction Produced by Isolates | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 70-44-68A | 72-00-1370C | 69-21-399 | 71-21-584B | 72-25-639C | 72-00-53A | 72-01-4A | 74-21-1490A |
| | 29 | 151 | | 11-32-113 | | | 15B-2 | |
| No. Entry | HJCS | QFBS | QSHS | RHRS | RKQS | RTQQ | TNMH | TNMK |
| 1. Marquis | S | 2- | 2 | S | 23 | 23 | S | S |
| 2. Chris | 0 | 2- | X | 0; | 2 | 2 | 2 | 2 |
| 3. Waldron | 2= | 2= | 2= | 2= | 2= | 2= | 2= | 2= |
| 4. Era | 0 | ; | 2 | ; | ; | ; | ; | ; |
| 5. Butte | ; | ; | 2 | 2= | 2- | 2= | ; | ; |
| 6. SD2956 | 2- | 2= | 23cn | 23cn | 2= | 2= | 2= | 2= |
| 7. SD2962 | 0 | ; | 2= | ; | 2= | 2= | ;1 | 2= |
| 8. SD2980 (Sharp) | 0 | ; | 2-cn | 2-cn | 2= | 2= | ;1- | ; |
| 9. SD2990 | ; | ; | 2 | ;1 | 2- | 2= | ; | ; |
| 10. SD2961 | ; | ; | 2- | ; | 2= | 2= | ; | ; |
| 11. MN82047 | ; | ; | 2 | ; | 1 | ; | ; | 2 |
| 12. MN81110 | 0 | ; | 2- | ; | ;1- | ;1 | ; | ; |
| 13. MN82354 | ; | ; | 2 | ; | 2 | 2 | ; | ; |
| 14. MN82008 | 0 | ; | 1cn | 0; | ; | ; | ; | 2cn |
| 15. MN84662 | 0 | ; | 2 | 0; | ;1- | ; | ; | ; |
| 16. MT8320 | ;1 | 2- | 2= | 2= | 23 | ;1 | ;1 | 23 |
| 17. MT8304 | 0 | ; | 2 | 0; | 2= | ; | ; | ; |
| 18. MT8402 | ; | ; | S | ; | 2 | ; | ; | ;1 |
| 19. ND606 | 2= | 2- | 2 | 2= | 2= | 21 | ;,2 | ;,2 |
| 20. ND617 | ;1 | ; | ; | ; | 2= | 2= | 2= | 2= |
| 21. ND618 | 0 | ; | ; | ; | 2= | 2- | ; | ; |
| 22. ND626 | 2= | 2= | 2= | 2= | 2= | 2= | 2= | 2= |
| 23. ND622 | ; | 1 | 2= | ; | 1- | 2= | 2= | 2= |
| 24. HS82-175 | 1 | 1 | 1 | 21 | 2 | 2= | 2= | 2= |
| 25. HS82-288 | 2= | 2= | 2= | 2 | 2- | 2= | 2= | 2- |
| 26. HS84-700 | 0 | ; | 2= | ; | ; | ; | ; | 2- |
| 27. HS84-873 | 2= | ;1- | 2- | ; | 2= | 2- | 2= | 2- |
| 28. C982-324 | 2= | 1 | 2 | 2= | 2= | 2- | 2= | 2- |
| 29. WA7075 | 2= | 0; | 2 | ; | 2= | 2 | 2 | ; |
| 30. WA7329 | 0 | 0; | 1 | ;1 | 2= | 2- | S | ; |
| 31. WA7330 | 0 | 2 | 2 | 32c | 2 | ; | ; | 2 |

9700029

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(*Wheat*)

# OBJECTIVE DESCRIPTION OF VARIETY
## WHEAT (*Triticum* spp.)

NAME OF APPLICANT(S)
SOUTH DAKOTA AGRICULTURAL EXPERIMENT STATION

ADDRESS (*Street and No. or R.F.D. No., City, State, and Zip Code*)
SOUTH DAKOTA STATE UNIVERSITY
AG HALL 129
BROOKINGS, SD 57007

FOR OFFICIAL USE ONLY

PVPO NUMBER 9600184

VARIETY NAME

TEMPORARY OR EXPERIMENTAL DESIGNATION

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g. [ ][ ][ ] or [ ][ ]) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____

**Please answer all questions for your variety; lack of response may delay progress of your application.**

1. KIND:

[1] 1=Common 2=Durum 3=Club 4=Other (SPECIFY) _____

2. VERNALIZATION:

[1] 1=Spring 2=Winter 3=Other (SPECIFY) _____

3. COLEOPTILE ANTHOCYANIN:

[1] 1=Absent 2=Present

4. JUVENILE PLANT GROWTH:

[2] 1=Prostrate 2=Semi-erect 3=Erect

5. PLANT COLOR (boot stage):

[2] 1 = Yellow-Green 2 = Green 3 = Blue-Green

6. FLAG LEAF (boot stage):

[2] 1 = Erect 2 = Recurved [2] 1 = Not Twisted 2 = Twisted

7. EAR EMERGENCE:

[0][3] Number of Days Earlier Than Chris *

[0][2] Number of Days Later Than Butte 86 *

8. ANTHER COLOR:

[1] 1 = YELLOW 2 = PURPLE

9. PLANT HEIGHT (from soil to top of head, excluding awns):

[0][5] cm Taller Than 2375 *

[1][2] cm Shorter Than Chris *

96001
Exhibit C (White)

10. STEM:

A. ANTHOCYANIN

[1] 1=Absent 2=Present

B. WAXY BLOOM

[2] 1=Absent 2=Present

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USDA-AMS-PVPO
'96 MAR 15 A10:39

C. HAIRINESS (last internode of rachis)

[2] 1=Absent 2=Present

D. INTERNODE (SPECIFY NUMBER) 4 (including peduncle)

[1] 1=Hollow 2=Semi-solid 3=Solid

E. PEDUNCLE

[2] 1=Absent 2=Present

[42] cm Length

11. HEAD (at Maturity):

A. DENSITY

[2] 1=Lax 2=Middense 3= Dense

B. SHAPE (fusiform)

[1] 1 = Tapering 2= Strap 3 = Clavate 4 = Other (SPECIFY) _____

C. CURVATURE

[2] 1 = Erect 2 = Inclined 3 = Recurved

D. AWNEDNESS

[4] 1 = Awnless 2 = Apically Awnletted 3 = Awnletted 4 = Awned

12. GLUMES (at Maturity):

A. COLOR

[1] 1 = White 2 = Tan 3 = Other (SPECIFY) _____

B. SHOULDER

[2] 1 = Wanting 2 = Oblique 3 = Rounded 4 = Square 5 = Elevated 6 = Apiculate

C. BEAK

[3] 1 = Obtuse 2 = Acute 3 =Acuminate

D. LENGTH

[2] 1 = Short (ca. 7mm) 2 = Medium (ca. 8mm) 3 = Long (ca. 9mm)

E. WIDTH

[2] 1 = Narrow (ca. 3mm) 2 = Medium (ca. 3.5mm) 3 = Wide (ca. 4mm)

13. SEED:

A. SHAPE

[1] 1 = Ovate 2 = Oval 3 = Elliptical

B. CHEEK

[2] 1=Rounded 2=Angular

C. BRUSH

[2] 1=Short 2=Medium 3=Long

[1] 1 = Not Collared 2 = Collared

D. CREASE

[2] 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

[2] 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

13. SEED: (continued)

E. COLOR

[3] 1 = White 2 = Amber 3 = Red 4 = Other (SPECIFY) _____

F. TEXTURE

[1] 1=Hard 2=Soft

G. PHENOL REACTION *(see instructions)*:

[ ] 1 = Ivory 2 = Fawn 3 = Light Brown 4 = Dark Brown 5 = Black

14. DISEASE: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

Stem Rust *(Puccinia graminis* f. sp. *tritici)*
[3] See Table 3

Leaf Rust *(Puccinia recondita* f. sp. *tritici)*
[2] field reaction

Stripe Rust *(Puccinia striiformis)*
[0]

Loose Smut *(Ustilago tritici)*
[1]

Tan Spot *(Pyrenophora tritici-repentis)*
[1]

Flag Smut *(Urocystis agropyri)*
[0]

Halo Spot *(Selenophoma donacis)*
[0]

Common Bunt *(Tilletia tritici* or *T. laevis)*
[0]

*Septoria nodorum* (Glume Blotch)
[0]

Dwarf Bunt *(Tilletia controversa)*
[0]

*Septoria avenae* (Speckled Leaf Disease)
[0]

Karnal Bunt *(Tilletia indica)*
[0]

*Septoria tritici* (Speckled Leaf Blotch)
[0]

Powdery Mildew *(Erysiphe graminis* f. sp. *tritici)*
[0]

Scab (*Fusarium* spp.)
[3]

"Snow Molds"
[0]

"Black Point" (Kernel Smudge)
[0]

Common Root Rot *(Fusarium, Cochliobolus* and *Bipolaris* spp.)
[0]

Barley Yellow Dwarf Virus (BYDV)
[0]

Rhizoctonia Root Rot *(Rhizoctonia solani)*
[0]

Soilborne Mosaic Virus (SBMV)
[0]

Black Chaff *(Xanthomonas campestris* pv. *translucens)*
[0]

Wheat Yellow (Spindle Streak) Mosaic Virus
[0]

Bacterial Leaf Blight *(Pseudomonas syringae* pv. *syringae)*
[0]

Wheat Streak Mosaic Virus (WSMV)
[0]

Other (SPECIFY) _____
[ ]

Other (SPECIFY) _____
[ ]

Other (SPECIFY) _____
[ ]

Other (SPECIFY) _____
[ ]

Other (SPECIFY) _____
[ ]

Other (SPECIFY) _____
[ ]

NR1002P

9600184
Exhibit C (Wheat) Pag

15. INSECT: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

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| | | | |
|---|---|---|---|
| Hessian Fly *(Mayetiola destructor)* | [3] Heterogeneous to Great Plains biotype | Other (SPECIFY) | [ ] |
| Stem Sawfly *(Cephus spp.)* | [0] | Other (SPECIFY) | [ ] |
| Cereal Leaf Beetle *(Oulema melanopa)* | [0] | Other (SPECIFY) | [ ] |
| Russian Aphid *(Diuraphis noxia)* | [0] | Other (SPECIFY) | [ ] |
| Greenbug *(Schizaphis graminum)* | [0] | Other (SPECIFY) | [ ] |
| Aphids | [0] | Other (SPECIFY) | [ ] |

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

Seedling tests at the Cereal Rust Lab., St. Paul, MN, indicated that the probable genes for stem rust resistance are *Srwld* and/or *Sr24*.

Gene for Hessian fly resistance is H18 (screening by Dr. J. H. Hatchett, USDA, ARS, Manhattan, Kansas).

EXHIBIT D.
Russ (SD8073)
Additional Description of the Variety

The following additional descriptive information is presented:

- Release notice of Russ
- Table 4. South Dakota performance data.
- Table 5. Uniform Regional Hard Red Spring Wheat Nursery performance data.
- Table 6. 1994 Hard Spring Wheat Technical Committee data.

9600184

South Dakota State University
SDSU

College of Agriculture and Biological Sciences

Agricultural Experiment Station

Office of the Director

Ag Hall 129, Box 2207
SDSU
Brookings, SD 57007-0291
Phone 605-688-4149
FAX 605-688-6065

DATE: March 15, 1995

TO: Agricultural Experiment Station Directors
North Central Region and Great Plains

FROM: Fred A. Cholick, Director
Agricultural Experiment Station

SUBJECT: Release of Cultivars

---

The South Dakota Agricultural Experiment Station announces the release of the following cultivars and germplasms:

1) **SD8073 Hard Red Spring Wheat** - Proposed name 'Russ'; PVP recommended
2) **SD8070 Hard Red Spring Wheat Germplasm**
3) **Spring Wheat Germplasm: SD-SWGP1, SD-SWGP2, SD-SWGP3, SD-SWGP4,** and **SD-SWGP5**

The release date is March 1, 1995.

The South Dakota Agricultural Experiment Station also announces the increase with intent to release in 1996 **SD0010 Hard Red Spring Wheat.**

Enclosed are descriptions of the new releases and increase. Complete yield and agronomic data are available on request from the Plant Science Department.

Seed is available through the Foundation Seed Stocks Division, Department of Plant Science, South Dakota State University, Brookings, SD 57007 (605-688-5418).

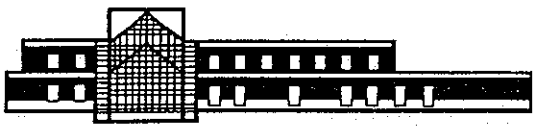
Action has also been taken to increase with intent to release the following crop varieties. Release date of the following materials will be dependent upon availability of seed. Information on this material is available on request from the Plant Science Department.

SD302 Canada milk-vetch
SD201 yellow-flowered alfalfa
SD501 foxtail dalea
SD92-1323M, SD92-1357M and SD92-1233M soybean lines
SD89210, SD89504, and SD89210 oats

ph

Enclosures

cc: Cultivar Release/Variety Recommendation Committee
Plant Breeders



Northern Plains Biostress Laboratory
Dedicated on September 17, 1993

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**Release of SD8073 Hard Red Spring Wheat as 'Russ'**

SD8073 hard red spring wheat will be released as 'Russ'. It is anticipated that Russ will be submitted for cultivar protection under the Plant Variety Protection Act, and Title V of the Federal Seed Act.

Russ is an awned, early maturing, standard height, hard red spring wheat. It is an $F_6$ derived line from the cross SD8052/SD2971. The pedigree of SD8052 is ND585/Shield and the pedigree of SD2971 is Agt/3/ND441//Wld/BB/4/Butte/5/Len. Russ has been in South Dakota State University trials since 1990 and in the Uniform Regional Hard Red Spring Wheat Nursery (HRSWURN) from 1991 to 1993. It was in the Spring Wheat Quality Advisory Council (SWQAC) trial in 1993 and 1994.

In relative performance to 'Butte 86' (109 site-years), SD8073 was 2 bushels/acre higher yielding, slightly lower in bushel weight, and similar in height. It is 2 days later heading than Butte 86 and 2 days earlier heading than 'Prospect'. South Dakota trials indicate that SD8073 yields more than Butte 86, Prospect, and 'Sharp'; and similar to '2375'. It appears to be widely adapted and has performed well in all areas tested in South Dakota as well as in HRSWURN locations.

Russ has good resistance to the prevalent races of leaf and stem rust in South Dakota. The probable genes for stem rust resistance are Waldron and/or SR24. It is heterogeneous for Hessian Fly resistance (H18), with approximately 50% of the plants resistant to the Great Plains biotype. Based on 1993 and 1994 performance data, Russ is similar to Butte 86 for Fusarium Head Blight resistance.

Russ is a strong mixing wheat with medium protein content. Three year quality evaluations by the U.S.D.A. Spring and Durum Wheat Quality Laboratory, Fargo, North Dakota, indicate that Russ is about 0.5% higher protein than Prospect and 0.2% lower protein than Butte 86; it has a longer mix time and a stronger mix pattern than Butte 86. In the SWQAC trials the protein content of Russ was between 0.5% and 1.0% less than 'Grandin', the milling characteristics were rated slightly lower than Grandin, and the baking properties were rated slightly higher than Grandin.

Table 4. Yield trial data from South Dakota.

## SDSU Spring Wheat Breeding Trials
## 1990-1994 Grain Yield (bu/a)

| | Brookings (5) | Redfield (4) | Watertown (5) | Brentford (4) | Highmore (4) | Selby (5) | Ralph (5) | Brookings Late (4) | Day Co. (5) | Groton (1) | Average (42) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SD8073 | 40.3 | 30.6 | 46.9 | 42.9 | 40.0 | 54.0 | 39.8 | 44.1 | 49.8 | 50.4 | 43.4 |
| Butte 86 | 41.6 | 28.5 | 44.1 | 40.0 | 39.3 | 51.5 | 40.7 | 41.9 | 50.0 | 42.7 | 42.2 |
| 2375 | 43.9 | 32.7 | 46.3 | 40.2 | 39.0 | 54.4 | 41.5 | 45.5 | 50.9 | 39.4 | 43.7 |
| Prospect | 36.1 | 26.6 | 36.9 | 38.9 | 36.3 | 54.6 | 41.2 | 38.4 | 47.4 | 44.0 | 39.6 |
| Sharp | 40.5 | 28.8 | 44.6 | 41.1 | 35.9 | 49.8 | 38.3 | 40.6 | 48.3 | 44.0 | 41.2 |

| | 1990 (8) | 1991 (9) | 1992 (9) | 1993 (8) | 1994 (8) | 90-94 (42) | TW (30) | Prot (18) | Head (30) | Ht (30) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | ----------1991-1994--------- | | | |
| SD8073 | 44.9 | 33.4 | 57.5 | 38.4 | 42.3 | 43.4 | 57.3 | 13.9 | +2 | 35 |
| Butte 86 | 44.8 | 35.2 | 54.3 | 37.7 | 38.9 | 42.4 | 58.1 | 14.1 | 0 | 35 |
| 2375 | 45.8 | 35.9 | 58.5 | 39.7 | 38.3 | 43.7 | 59.0 | 13.7 | +2 | 33 |
| Prospect | 42.6 | 31.2 | 52.0 | 34.6 | 37.8 | 39.6 | 56.3 | 13.3 | +4 | 32 |
| Sharp | 41.7 | 33.9 | 53.3 | 36.2 | 40.2 | 41.2 | 59.2 | 13.9 | 0 | 35 |

## Crop Performance Trial, 1991-1994

| | ----------Grain Yield (bushels/acre)---------- | | | | | | | | | | | TW | Hd | Ht |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Brookings (4) | Watertown (4) | Highmore (3) | Redfield (4) | Selby (4) | Groton (4) | Aurora Co (1) | Wall (4) | Bison (4) | Ralph (4) | 91-94 (36) | lbs/bu | days | inches |
| SD8073 | 45.8 | 39.3 | 39.7 | 31.1 | 50.9 | 50.6 | 26.4 | 47.1 | 42.7 | 42.6 | 41.2 | 56.9 | +2 | 32 |
| Butte 86 | 44.3 | 36.3 | 39.1 | 27.3 | 50.2 | 51.7 | 23.4 | 47.1 | 37.2 | 43.2 | 39.9 | 58.6 | 0 | 33 |
| 2375 | 50.4 | 40.6 | 38.2 | 29.6 | 50.6 | 52.7 | 33.9 | 45.4 | 39.0 | 43.8 | 41.4 | 58.5 | +2 | 31 |
| Prospect | 45.5 | 34.2 | 39.5 | 27.3 | 51.0 | 52.3 | 29.1 | 45.2 | 42.0 | 47.5 | 40.7 | 56.6 | +3 | 30 |
| Sharp | 48.2 | 35.8 | 38.0 | 28.1 | 47.4 | 52.7 | 28.5 | 45.6 | 37.8 | 40.1 | 40.0 | 57.6 | +1 | 33 |



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Table 5. Yield trial data from the Uniform Regional Hard Red Spring Wheat Nursery. 1991-1993: North Dakota, South Dakota, Minnesota.

| | 1991 (11) | 1992 (10) | 1993 (10) | 91-93 (31) |
|---|---|---|---|---|
| | ----------Grain Yield (bu/acre)---------- | | | |
| Stoa | 35.3 | 55.4 | 36.3 | 42.3 |
| Butte 86 | 37.2 | 52.1 | 37.6 | 42.3 |
| Russ | 38.8 | 57.9 | 41.7 | 46.2 |
| Kulm | 38.7 | 52.1 | 39.7 | 43.5 |

Characteristics (1993)

| | TW lb/bu (16) | Heading days (15) | Height (cm) (16) | Prot % (13) | Stem Rust (1) | Leaf Rust (1) |
|---|---|---|---|---|---|---|
| Stoa | 56.0 | 34 | 100 | 13.9 | 0 | 10MR-MS |
| Butte 86 | 57.4 | 30 | 92 | 13.8 | 5RMR | 10MR-MS |
| Russ | 56.1 | 32 | 92 | 13.4 | TMR | TMR-MS |
| Kulm | 58.3 | 30 | 96 | 13.9 | TR | TR-MR |

Leaf rust and stem rust are from an inoculated nursery in St. Paul.

# Table 6. 1994 HARD SPRING WHEAT TECHNICAL COMMITTEE

VARIETY: **SD8073**

| Sample Code: | B-CK | B-12 | C-CK | C-12 | K-CK | K-12 | M-CK | M-12 | Average Grandin | Average SD8073 |
|---|---|---|---|---|---|---|---|---|---|---|
| Wht Protein(14%mb): | 16.1 | 15.1 | 14.5 | 13.7 | 14.5 | 13.6 | 16.1 | 15.2 | 15.3 | 14.4 |
| Wheat Ash(14%mb): | 1.72 | 1.74 | 1.67 | 1.79 | 1.69 | 1.66 | 1.55 | 1.47 | 1.66 | 1.67 |
| Test Weight(lb/bu): | 57.3 | 57.1 | 59.8 | 59.7 | 60.4 | 60.5 | 62.0 | 62.6 | 59.9 | 60.0 |
| 1000-KWT(gram): | 28.2 | 28.5 | 31.6 | 31.7 | 30.7 | 30.8 | 36.4 | 35.8 | 31.7 | 31.7 |
| Large Kernels(%): | 49 | 46 | 54 | 52 | 58 | 62 | 69 | 74 | 58 | 59 |
| Small Kernels(%): | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 |
| NIR Hard: | 90.0 | 81.0 | 95.0 | 87.0 | 97.0 | 97.0 | 90.0 | 94.0 | 93 | 90 |
| Kernel Vit(%): | 60.9 | 44.2 | 75.6 | 74.0 | 80.3 | 85.7 | 93.3 | 71.1 | 77.5 | 68.8 |
| SKWCS HI: | 78.5 | 74.9 | 81.4 | 84.0 | 85.2 | 86.8 | 70.2 | 71.8 | 78.8 | 79.4 |
| Wht FN(sec): | 352 | 385 | 384 | 388 | 371 | 377 | 363 | 366 | 368 | 379 |
| Fl Protein(14%mb): | 15.2 | 14.0 | 13.7 | 13.1 | 13.9 | 13.1 | 15.3 | 14.3 | 14.5 | 13.6 |
| Fl Ash(14%mb): | 0.46 | 0.43 | 0.43 | 0.49 | 0.47 | 0.46 | 0.41 | 0.40 | 0.44 | 0.44 |
| Fl Ext(%): | 70.7 | 68.9 | 72.6 | 71.5 | 73.5 | 70.5 | 72.3 | 72.1 | 72.3 | 70.7 |
| # .46 Ash Fl/cwt Wht: | 73.9 | 72.5 | 74.6 | 62.2 | 73.5 | 71.9 | 76.9 | 76.8 | 74.7 | 70.9 |
| Mill Value($): | 1.89 | 1.79 | 1.91 | 1.68 | 1.93 | 1.80 | 2.07 | 2.11 | 1.95 | 1.85 |
| Farino Abs(14%mb): | 62.4 | 62.2 | 61.1 | 61.7 | 60.5 | 60.5 | 66.1 | 64.6 | 62.5 | 62.3 |
| Farino Arrival Time(min): | 3.0 | 2.7 | 2.8 | 2.3 | 2.3 | 1.9 | 4.2 | 3.9 | 3.1 | 2.7 |
| Farino Peak Time(min): | 6.5 | 9.1 | 5.2 | 5.5 | 4.5 | 5.9 | 7.6 | 6.4 | 6.0 | 6.7 |
| Farino Stability(min): | 11.9 | 15.3 | 8.1 | 9.8 | 8.1 | 10.3 | 12.4 | 9.6 | 10.1 | 11.3 |
| Farino MTI(BU): | 14 | 24 | 29 | 22 | 28 | 30 | 9 | 19 | 20 | 24 |
| Bake Asorption(14% mb): | 62.4 | 62.2 | 60.3 | 60.9 | 60.4 | 60.6 | 64.1 | 64.0 | 61.8 | 61.9 |
| Bake Rating: | 3.8 | 3.4 | 2.8 | 2.9 | 2.8 | 2.9 | 4.5 | 4.4 | 3.5 | 3.4 |
| Bake Mix Time Actual: | 11.0 | 11.4 | 8.5 | 8.8 | 8.2 | 9.1 | 11.5 | 10.1 | 9.8 | 9.8 |
| Bake Mix Time Rating: | 3.9 | 4.3 | 3.0 | 3.0 | 2.5 | 3.3 | 4.2 | 3.7 | 3.4 | 3.6 |
| Mix Tolerance Rating: | 3.8 | 4.0 | 2.5 | 3.3 | 2.7 | 3.1 | 4.4 | 3.7 | 3.4 | 3.5 |
| Out of Mixer Rating: | 3.6 | 3.7 | 3.3 | 3.3 | 2.9 | 3.1 | 3.9 | 3.5 | 3.4 | 3.4 |
| Out of Mixer Describe: | 2.1 | 2.3 | 1.8 | 2.0 | 1.8 | 2.2 | 2.3 | 2.1 | 2.0 | 2.1 |
| At Make Up Rating: | 3.9 | 3.7 | 2.8 | 3.3 | 2.5 | 3.6 | 4.3 | 3.4 | 3.4 | 3.5 |
| At Make Up Describe: | 2.2 | 2.3 | 1.5 | 2.1 | 1.5 | 1.8 | 2.5 | 2.4 | 1.9 | 2.2 |
| Loaf Volume Rating: | 3.8 | 3.9 | 3.4 | 3.2 | 3.0 | 3.8 | 4.8 | 3.7 | 3.7 | 3.6 |
| Crumb Color: | 2.7 | 3.8 | 2.9 | 3.8 | 3.1 | 4.0 | 3.8 | 4.0 | 3.1 | 3.9 |
| Crumb Grain: | 3.4 | 3.8 | 3.2 | 3.4 | 3.5 | 4.1 | 3.9 | 3.8 | 3.5 | 3.8 |
| Crumb Texture: | 3.5 | 3.6 | 2.9 | 3.8 | 3.4 | 4.0 | 3.8 | 3.8 | 3.4 | 3.8 |
| Overall Rating: | 3.3 | 3.7 | 2.7 | 3.3 | 3.0 | 3.6 | 4.0 | 3.7 | 3.2 | 3.6 |

Rating Scores : 0 3 6
Bake Absorption : Low ---------- High
Bake Mix Time : Short ---------- Long
Mixing Tolerance : Weak ---------- Strong
Out Of Mixer : Weak ---------- Bucky
At Make Up : Weak ---------- Bucky
Loaf Volume : Low ----------High
Crumb Color : Yellow Grey Dull Creamy Bright White
Crumb Grain : Irregular,open,thick Open, thick Close,elongated,fine
Crumb Texture : Harsh Coarse Silky
Overall Rating : Poor ---------- Excellent

Out of Mixer Describe:
1. Sticky - Weak
2. Medium - Pliable
3. Tough - Bucky

Out of Mixer Describe:
1. Sticky - Weak
2. Medium - Pliable
3. Tough - Bucky

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

# EXHIBIT E
# STATEMENT OF THE BASIS OF OWNERSHIP

*The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.*

*Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).*

1. NAME OF APPLICANT(S)

SOUTH DAKOTA AGRICULTURAL EXPERIMENT STATION

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER

SD 8073

3. VARIETY NAME

Russ

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*

SOUTH DAKOTA STATE UNIVERSITY
AG HALL 129
BROOKINGS, SD 57007

5. TELEPHONE *(include area code)*

605-688-4149

6. FAX *(include area code)*

605-688-6065

7. PVPO NUMBER

9600184

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* If no, please explain. [X] YES [ ] NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company? [X] YES [ ] NO
If no, give name of country _____

10. Is the applicant the original breeder? If no, please answer the following: [X] YES [ ] NO

a. If original rights to variety were owned by individual(s):
Is (are) the original breeder(s) a U.S. national(s)? If no, give name of country _____

[ ] YES [ ] NO

b. If original rights to variety were owned by a company:
Is the original breeder(s) U.S. based company? If no, give name of country _____

11. Additional explantion on ownership *(If needed, use reverse for extra space):*

## PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original breeder, both the original breeder and the applicant must meet one of the above criteria.

The original breeder may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

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